Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports				
	Completed Biological Projects								
E03 S	ABB Environmental Services, Inc. Wakefield MA Jay Johnson 617-245-6606	In-situ Biological Treatment for Chlorinated Solvents in Soils	Randy Parker 513-569-7271	Project completed 1993.	Bulletin published August 1995. (EPA/540/F-95/510) Final report being reviewed.				
E07 S	ABB Environmental Wakefield, MA Dan Groher 617-245-6606	Anaerobic/ Aerobic Sequential Bioremediation of PCE	Randy Parker 513-569-7271	Field work completed April 1998.	Paper was presented at Battelle Conference May 18-21, 1998.				
E01 GW	Bio-Recovery Systems, Inc. Las Cruces NM Mike Hosea 505-523-0405 800-697-2001	Biological Sorption of Metal-lons from Ground Water	Randy Parker 513-569-7271	Project completed 1990 Developer moved to the SITE Demonstration Program.	Report (EPA/540/5- 90/005a&b) Bulletin (EPA/540/F-92/003) Summary (EPA/540/S5-90/005) Journal article JAWMA Vol. 41, No. 10, 10/91				
E03 GW	Biotrol, Inc. Eden Prairie MN Durrell Dobbins 612-942-8032	Bacterial Oxidation of Chlor-Aliphatics in Groundwater	David Smith 303-293-1475	Project completed 1992.	Project summary EPA/540/S-93/505. Bulletin EPA/540/F-93/506 Journal article JAWMA Vol. 43, No 11, 11/93				
E05 S	COGNIS, Inc. Santa Rosa CA Ron Wilson 707-576-6231	Coupled Metal Extraction/ Bio-remediation	Steve Rock 513-569-7149	Project completed 1995.	Final report sent to NTIS.				
E01 SW	Colorado School of Mines Golden CO Dr. Thomas Wildeman 303-273-3642	Wetland-Based Treatment for Mineral Mine Drainage	Edward Bates 513-569-7774	Emerging project completed 1991. Technology accepted into SITE Demonstration Program under the Colorado Dept. Of Health.	Final report for NTIS only (EPA/540R-93/523) Bulletin (EPA/540/F-92/001) Summary (EPA/540/SR-93/523).				

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports
		Completed B	Biological Projects	(continued)	
E08 S	Electrokinetics Inc. Baton Rouge, LA Elif Acar 504-753-8004	In-Situ Bioremediation by electrokinetic Injection	Randy Parker 513-569-7271	Project completed 1999.	Final Report available from Project Officer. Summary EPA/540/SR-00/503
E06 S	Environmental Biotech San Carlos CA Douglas Munnecke 415-596-1015	Microbial Composting Process for Manufacturing Town Gas Wastes	Randy Parker 513-569-7271	Research completed 1996.	Draft final report being reviewed.
E04 S	Groundwater Technology Government Services Concord CA Dr. Ronald Hicks 510-671-2387	Biological Composting of Cyclodiene Pesticides Chlordane & Heptachlor	Randy Parker 513-569-7271		Draft final report, project summary and bulletin being reviewed.
E04 S	Institute of Gas Technology Chicago IL Dr. Robert Kelley 708-768-0722	Integrated Chemical & Biological Treatment	Randy Parker 513-569-7271	Project completed 1993. Developer will start Demonstration Program with Retech at Utica spring 1995.	Emerging Technology summary received. Bulletin (EPA/540/F-94/504) Journal article submitted.
E03 S	Institute of Gas Technology Chicago IL Dr. Robert Kelley 708-768-0722	Fluid Extraction Biological Degradation of Organic Wastes	Valdis Kukainis 513-569-7955	Project completed 1992. Invited into Demo Program.	Bulletin (EPA/540/F-94/501)

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports				
	Completed Biological Projects (continued)								
E06	IT Corp. Knoxville TN Kandi Brown 909-799-6869	Innovative Methods for Bioslurry Treatment	Valdis Kukainis 513-569-7955	Project completed 1995.	Final Report PB97-176820 Summary (EPA/540/SR-96/505)				
EO3 S	J.R. Simplot Co. Pocatello ID Dane Higdem 208-234-5367	Anaerobic Biological Destruction of Nitroaromatics in Soil and Sludge.	Wendy Davis- Hoover 513-569-7206	Project completed 1993. Developer has now successfully demonstrated the technology for Dinoseb and TNT in the field.	Journal article for Applied and Environmental Microbiology 58:1683-1689				
EO3	Media & Process Technology (formerly Alcoa and Aluminum Co. Of America) Pittsburgh PA Paul K.T. Liu 412-826-3711	Biological Scrubber for Removing Organic Emissions	Paul dePercin 513-569-7797	Project completed 1993.	Report (EPA/540/R-93/521) Bulletin EPA/540/F-93/507) Summary (EPA/540/SR-93-521) Journal article A&W Vol. 44, 3/94 pp. 299- 303.				
E04 S	New Jersey Institute of Technology Hazardous Substances Mgmt. Res. Center Newark NJ John Schuring 973-596-5849	Integrated Pneumatic Fracturing Bioremediation for in-situ Treatment of Contaminated Soil	Randy Parker 513-569-7271	Field pilot study was completed 1994. Final sampling and data analysis were completed March 1995.	Journal article cleared October, 1995 & submitted to JAWMA.				
E05	OHM Corporation	In-situ Bioremediation	Randy Parker 513-569-7271	Draft bulletin received.	Paper was presented at Battelle Conference				
S	Findlay OH Douglas E. Jerger 419-423-3526	Using Oxygen Microbubbles	313-303-1211	TOUGIVEU.	May 18-21, 1998.				
E08 S	Phytokinetics Inc. North Logan UT Dr. Ari Ferro 801-750-0985	Phytoremediation of PCP and PAHs	Steve Rock 513-569-7149	Field work complete.	Journal article submitted to Journal of Soil Contamination.				

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports
		Completed B	iological Projects	(continued)	
E08 S	Pintail Systems Inc. Aurora, CO Leslie Thompson 303-367-8443	Immobilization & Remineralization of Metals in Soils Spent in Ores and Waters.	Randy Parker 513-569-7271	Work completed.	Draft bulletin received, final report being prepared.
E05 S	Remediation Technologies, Inc. Seattle WA Dr. Hans Stroo 206-624-9349	Gas-phase Biofilter for Chlorinated VOCs	Randy Parker 513-569-7271	Project Completed 1995.	Draft final report being reviewed.
		Completed	Materials/Handling	g Projects	
E03	Montana College of Mineral Science and Technology Butte MT Theodore Jordan 406-496-4112	Recovery of Metal Values and Toxins from Mine Wastes	Ed Bates 513-569-7774	Testing complete.	Paper submitted for publication by AW&WM.
E03 SW	Montana College of Mineral Science and Technology Butte MT Gordon Ziesing 406-494-1473	Recovery of Heavy Metals from Wastes with a Centrifugal Jig	Randy Parker 513-569-7271	Initial screening tests have been conducted.	A final report has been received.
E04 S	National Environmental Technology Centre (formerly WarrenSpring Laboratory) Culham, England Peter Wood 01- 44-235-46- 319	Physical Processing Techniques for Treatment of Contaminated Soils	Mary Stinson 732-321-6683	All work by the developer is completed.	Due to lack of reports, developer has been exited from the Program.

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports				
	Completed Materials/Handling Projects (continued)								
E07	Thermo Nutech (Was TMA Eberline/ ThermoAnalyt- ical Albuquerque, NM Jeff Brown 423-481-0683	Segmented Gate System for Soil w/radionuclides	Vicente Gallardo 513-569-7176	Field test in Ashtabula OH has been completed.					
E03 SW	University of South Carolina Columbia SC Frank Caruccio 803-777-4512	Abatement of Acid Mine Drainage Through Site Surface Reconstruction	Roger Wilmoth 513-569-7509	All field work is finished, project marginally successful.	Final report not available.				
		Completed	Physical/Chemica	al Projects					
E06 A	Arizona State University Gregory Raupp 602-965-2828	Integration of Photocatalytic Oxidation with Air Stripping	Norma Lewis 513-569-7665	Work is completed.	Final report has been sent to NTIS. Project summary has been sent to printing. Report (EPA/540/R-98/504) Summary (EPA/540/SR-98/504)				
E02 S	ART International (was Enviro- Sciences, Inc.) Denville NJ Warner Steiner 201-627-7601	Low-Energy Solvent Extraction for Organics	Randy Parker 513-569-7271	Project completed 1994.	A final report has been received.				
E01 SW	Atomic Energy of Canada, Chalk River, Ontario, Canada Leo Buckley 613-584-3311	Ultrafiltration of Metal/Chelate Complexes from Water	John Martin 513-569-7758	Project completed 1993.	Bulletin (EPA/540/F-92/002) Paper in HAZTECH International 89 Conference, 9/12-14/1989 Cincinnati, OH AECL-10030 @ Scientific Document Dist. Office, AECL, Chalk River, Ontario, Canada KOJIJO				

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Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports
		Completed Physi	cal/Chemical Proj	ects (continued)	
E06	Atomic Energy of Canada, Chalk River, Ontario, Canada L.A. Moschuk 613-584-3311 Extension 6057	Ultrasonic- Aided Leachate Treatment for Mixed Wastes	Randy Parker 513-569-7271	Project completed December 1996.	Three reports submitted to Hazardous Waste Journal for publication Final report available.
E01	Battelle Memorial Institute Columbus Div. Columbus OH Satya Chauhan 614-424-4812	In-situ Electroacoustic Decontamination of Oils, Organics and Metals from Soil	Randy Parker 513-569-7271	Project completed 1990.	Final Report (EPA/540/5-90/004 Available fhrough NTIS) Summary (EPA/540/S5-90/004)
E03 S	Center for Hazardous Materials Research Pittsburgh PA Stephen Paff 412-826-5320	Acid Extraction of Organic Soils, Sludges and Ash	George Moore 513-569-7991	Project completed and closed out.	Report (EPA/540/R-94/513) Summary (EPA/540/SR-94/513)
E05 S	Center for Hazardous Materials Research Pittsburgh PA Bruce King 412-826-5320	Simultaneous Destruction of Organics and Stabilization of Metals and Metal ions in Soils	Randy Parker 513-569-7271	Project completed September 1995.	Final report EPA 540/SR-98/500
E05 S	COGNIS, Inc. Santa Rosa CA Dr. William Fristad 707-576-6235	COGNIS Lead Extraction Process	Mike Royer 732-321-6633	Project completed.	JAWMA article published, Vol. 46: pp 470 - 480, May 1996.

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports
		Completed Physi	cal/Chemical Proj	ects (continued)	
E04 S	Davy Research & Development Ltd., Cleveland, England George Rowden 011-441-642- 602221	Resin In-Pulp & Carbon In-Pulp Decontamination of Soil	Vicente Gallardo 513-569-7176	Original Principal Investigators left company; Company no longer developing the technology.	Developer has exited Program.
E03	Electrokinetics Inc. Baton Rouge LA Elif Acar 504-368-3992	Electrokinetic Soil Processing (EKSITE)	Randy Parker 513-569-7271	Project completed 1993. Moved into the demonstration program.	Bulletin (EPA/540/F-95/504) Final Report (EPA/600/R97/054) Article: Journal of Geotechnical Engineering March 1996, Pgs. 186-196 & 173-185.
E02 GW	Electro-Pure Systems Inc. Amherst NY James LaDue 716-691-2610	A/C Electro- Coagulation Phase Separation and Removal	Randy Parker 513-569-7271	Project completed 1992, closed out.	Bulletin (EPA/540/F-92/011) Summary (EPA/540/S-93/504) Journal Article AWMA Vol. 43, 5/93, pp 784-89
E05 A	Energia, Inc. Princeton, NJ Dr. Moshe Lavid 609-799-7970	Reductive Photo- Dechlorination	Michelle Simon 513-569-7469 Fax 513-569-7676	Project completed 1995, closed out.	Final report October 1995. Bulletin (EPA/540/F-94/508)
E07 A	Energia, Inc. Princeton, NJ Dr. Moshe Lavid 609-799-7970	Reductive Photo-oxidative Dechlorination	Michelle Simon 513-569-7469 Fax 513-569-7676	Project completed 1998, closed out.	Final report received and accepted.
E01 GW	Energy and Environmental Engineering, Inc. East Cambridge MA James Porter 617-666-5500	Laser-Stimulated Photochemical Oxidation of Water	Randy Parker 513-569-7271	Project completed 1993.	Report (EPA/540/R-92/080) PB93-131431 Bulletin (EPA/540/F-93/508) Summary (EPA/540/SR-92/080)

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports
		Completed Physi	cal/Chemical Proj	ects (continued)	
E03 GW/ SW	Florida International University Miami FL William Cooper 305-361-5508	High Energy Electron Irradiation for Destruction of Organics in Aqueous Solutions and Sludge	Franklin Alvarez 513-569-7631	Project was completed 1993 Accepted into demonstration program.	Final report was submitted. Bulletins: (EPA/540/F-93/502) (EPA/540/F-92/009) (EPA/540/F-93/509)
E06 S/ SED	High Voltage Environmental Miami, FL William Cooper 305-593-5330	Pilot-Scale Evaluation of Electron Beam Irradiation on Soil, Sediments, and Sludges	Mary Stinson 732-321-6683	Experimental work on PCB contaminated soil and on NY Harbor sediments with mixed contamination is completed.	Due to lack of reports, developer has been exited from the Program.
E07 S	Institute of Gas Technology Chicago, IL Dr. Michael Mensinger 708-768-0602	SELPhOx Fluid Extraction/ Oxidation Process for Organics	Valdis Kukainis 513-569-7955	Project completed.	Final report received.
E07	IT Corporation Cincinnati, OH Curtis Kellogg 513-782-4700	Chelation/Electro- deposition	George Moore 513-569-7991	Project has been completed and closed out.	Final report received.
E07	IT Corporation Knoxville TN Ed Alperin 615-690-3211	Treatment of Mixed Waste Contaminated Soils	Douglas Grosse 513-569-7844	Pilot-scale thermal desorption was completed in February 1995. Physical separation and chelant extraction was completed in 1995.	Paper presented AWMA June 1995.
E02 S	IT Corporation Knoxville TN Rich Miller 615-690-3211	Batch Stream Distillation; Extraction of Organics and Heavy Metals	Randy Parker 513-569-7271	Project completed 1992.	Bulletin (EPA/540/F-95/509)
E03	IT Corporation Knoxville TN Robert D. Fox 615-690-3211	Treatment of Soil Organics with UV Photolysis and Biodegradation	Randy Parker 513-569-7271	Project completed 1993.	Report PB95-159992 Bulletin (EPA/540/F-94/502) Summary (EPA/540/SR-94/531)

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Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports
		Completed Physi	cal/Chemical Proje	ects (continued)	
E08 A	KSE, Inc. Amherst, MA Dr. J.R. Kittrell 413-549-5506	Air II Photocatalytic VOC Destruction for AirStreams	Vicente Gallardo 513-569-7176	Development continues. 2nd field test (is ongoing at the Stramina Mills Superfund site in Rhode Island.)	First draft of reports have been received and reviewed.
E04 GW/ SW	Matrix Photocatalytic Ltd. (formerly Nutech Environmental) London, Ontario, Canada Bob Henderson 519-660-9349	Technology for Destruction of Organics & Inorganics in Aqueous Phase Systems	John Ireland 513-569-7413	Project completed 1993. Invited into demonstration program.	Peer-reviewed journal articles have been published. (EPA/540/A-93/282) and (EPA/540/J-93/297)
E05	Matrix Photocatalytic Ltd. (formerly Nutech Environmental) London, Ontario, Canada Bob Henderson 519-660-8525	Ti02 Photocatalytic Oxidation of Organics in Air Streams	John Ireland 513-569-7413	Project was completed 1993. Invited into demonstration program.	Peer-reviewed journal article was published in lieu of final report.
E07	Membran Corp. Minneapolis MN Charles Gentzer 612-378-2160	Membrane Gas Transfer	Paul dePercin 513-569-7797	Project discontinued.	
E02 A	Membrane Technology and Research, Inc. Menlo Park CA Tessa Ennals 650-328-2228	Membrane Process for Removal of Organics from Air	Paul de Percin 513-569-7797	Project completed 1991.	Bulletin (EPA/540/F-94/503)

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports				
	Completed Physical/Chemical Projects (continued)								
E06 S	NRT/General Atomics San Diego, CA Anthony Gattuso 619-455-2910	Acoustic Barrier Particulate Separator	Randy Parker 513-569-7271	Project Summary being considered.					
E03 S/ SW	New Jersey Institute of Technology Newark NJ Itzhak Gotlieb 201-596-5862	Decontamina- tion of Soil and Water by Reversible Adsorption on Surface-Active Compounds	Valdis Kukainis 513-569-7955	Project completed 1992.	Bulletin (EPA/540/F-94/508)				
E04 SW/ GW	Pulse Sciences San Leandro CA Vernon Bailey 510-632-5100	X-Ray Treatment for VOCs and SVOCs for liquids	Vicente Gallardo 513-569-7176	Project completed 1994.	Project Summary has been revised by Project Manager. Second draft in progress. Journal article is being prepared and will be submitted in lieu of a final report.				
E04 A	PURUS Inc. San Jose CA No known contact	Ultraviolet Flashlamps for Destruction of VOC in Air Phase	Norma Lewis 513-569-7665	Project completed 1992.	Report (EPA/540/R-93/516) Bulletin (EPA/540/R-93/501) Summary (EPA/540/SR-93/516)				
E06 GW	Roy F. Weston Chester, PA Joe Martino 610-701-6174	Regenerable Adsorption System for VOC Contaminated Ground Water	Randy Parker 513-569-7271	Project completed.	Bulletin (EPA/540/F-95/500) Summary (EPA/540/SR-95/516)				
E06 SED	State University of New York (SUNY) at Oswego, NY Ron Scrudato 315-341-3639	Photocatalytic Degradation of PCB- Contaminated Sediments	Randy Parker 513-569-7271	Project completed.	Final report received and is under review.				
E06 S	Titan/Pulse Science San Leandro, CA Vernon Bailey 510632- 5100	X-Ray Treatment for VOCs and SVOCs in Solids	George Moore 513-569-7991	Project completed.	Final report received and accepted.				

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Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports				
	Completed Physical/Chemical Projects (continued)								
E07 S	University of Houston, Houston, TX Dennis Clifford 713-743-4266	Concentrated Chloride Extraction and Recovery of Lead from Soil	Terry Lyons 513-569-7589		Report undergoing peer review.				
E02 GW	University of Washington Seattle WA Mark Benjamin 206-543-7645	Adsorptive Filtration of Inorganics from Liquids	Norma Lewis 513-569-7665	Project completed 1992	Report (EPA/540/R-93/515) Bulletin (EPA/540/F-92/008) Summary (EPA/540/SR-93/515)				
E08 GW	University of Wisconsin Madison, WI Dr. Marc Anderson 608-262-2674	Photo- electrocatalytic Degradation and Removal of Organic and Inorganic Contaminants from Ground Waters	Vicente Gallardo 513-569-7176	3 Journal articles published.	Bulletin has been cleared and is scheduled to be published. 3 journal articles have been published. Candal, etal, J.Adv. Oxid. Technol. 3 (3) 1998, pp. 270+; Candal, etal; J. Env. Eng. 125(10) pp.906+, Candal, et al; Env. Sci. and Tech. 34 (18) 3443+ Additional data has been requested from developer to allow QA review of project summary.				
E02 SW	Wastewater Technical Centre Burlington Ontario, Canada (Zenon Environmental) Chris Lipski 905-639-6320	Cross-Flow Pervaporation System for Removal of VOCs from Aqueous Wastes	John Martin 513-569-7758	Project completed 1992. Technology has been demonstrated under the name of Zenon.	Report (EPA/540/R-94/512) PB94-170230 Bulletin (EPA/540/F-93/503) Summary (EPA/540/SR-94/512)				
E01 S	Western Research Institute Laramie WY Lyle Johnson 307-721-2011	Contained Recovery of Oil Wastes	Richard Eilers 513-569-7809	Project completed 1991. Developer completed demonstration program.	Final report and summary are complete.				

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports				
	Completed Stabilization/Solidification Projects								
E03 S	Ferro Corp. Cleveland, OH Emillo Spinosa 216-641-8585 Ext. 6657	Vitrification of Solids and Sludges	Randy Parker 513-569-7271	Project completed 1993.	Bulletin (EPA/540/F-95/503)				
E04 S	Western Product Recovery Group, Inc. Houston, TX Donald H. Kelly 713-493-9321	Process for Sludge and Soils Contaminated with Organics and Heavy Metals	Vicente Gallardo 513-569-7176	All testing has been completed. Developer has mounted system on a trailer for future demonstrations.	Developer is working on final report, summary and journal article.				
		C	Completed Therma	l Projects					
E02 S	Babcock & Wilcox Co. Alliance OH D.K. Haidet 216-821-9110	Cyclone Furnace	Laurel Staley 513-569-7863	Project completed 1992. In demonstration program.	Report (EPA/540/R-93/507 Sent to NTIS) Bulletin (EPA/540/F-92/010) Summary (EPA/540/SR-93/507)				
E04 O	Center for Hazardous Materials Research Pittsburgh PA Roger Price 412-826-5320	Secondary Lead Smelters for Recovery of Lead from Waste Lead- Acid Battery Castings	Laurel Staley 513-569-7863	Project completed 1993.	Report (EPA/540/R-95/504) Bulletin (EPA/540/F-94/510) Summary (EPA/540/SR-95/504)				
E06 SW	Energy and Evnironmental Research Corp. Irvine CA Jerald Cole 714-859-8851	Reactor Filter System	Steve Rock 513-569-7149	Project complete.	Final report received.				
E03 S	Energy and Environmental Research Corp. Irvine CA Richard Kappang 714-859-8851	Spouted Bed Incineration with Metals Fixation	Teri Richardson 513-569-7949	Project completed 1992.	Final report was received. Bulletin (EPA/540/F-93/508) Project closed.				

Solici- tation/ Media	Developer	Technology	Project Manager	Status	Reports	
	Completed Thermal Projects (continued)					
E03	Institute of Gas Technology Chicago IL Michael Mensinger 312-949-3900	Two-Stage Fluidized Bed/Cyclonic Agglomerating Incinerator	Teri Richardson 513-569-7949	All tests have been completed.	Final report was received.	
E04	PSI Technology Company Andover MA Steve Johnson 508-689-0003	MIDAS for Solids Contaminated with Organics and Metals	Mark Meckes 513-569-7348	Project completed 1993.	Final report was received.	
E03	Svedala Industries, Inc., (formerly Allis Mineral Systems) Waukesha WI Bob Faulknet 414-762-1190	Thermal Encapsulation & Stabilization of Metals in Soils	Marta Richards 513-569-7692	Project completed 1993.	Final report journal article published in JAWMA, 45, July 1995, p514-520.	
E05	University of Dayton Dayton OH John C. Graham 513-229-2846	Development of a Photothermal Detoxification Unit	Annette Gatchett 513-569-7697	The results have been presented at AFRC, RREL, ACS, ET, and AOP symposiums.	Report (EPA/540/R-95/526) Bulletin (EPA/540/F-95/505) Summary (EPA/540/SR-95/526) Journal Article, Waste Management 15 (2), pages 159-170, 1995. Paper published in book entitled, "Environmental Applications of Advanced Oxidation Technologies", pages 9-19 - 9-25, September, 1997.	
E04 S	Vortec Corp. Collegeville PA James Hnat 215-489-2255	Vitrification Technology for Waste Treatment Processes	Teri Richardson 513-569-7271	Project Completed 1993. Invited to participate in the demonstration program.	Journal article & project summary have been published.	